



National Weather Service

Storm Data and Unusual Weather Phenomena



January 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Property Damage	Estimated Crops	Character of Storm
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SOUTH DAKOTA, West

SDZ028>029

Central Black Hills - Southern Black Hills

06 0200MST

0

0

Winter Storm

07 0000MST

8 TO 10 INCHES OF SNOW FELL

A FAST MOVING SHORTWAVE MOVED THROUGH THE REGION. FROM 4 TO 10 INCHES WERE REPORTED THROUGHOUT THE ENTIRE BLACK HILLS DURING A 24 HOUR PERIOD WITH THE GREATEST AMOUNTS (8 TO 10 INCHES) IN THE SOUTHERN AND CENTRAL BLACK HILLS.



National Weather Service

Storm Data and Unusual Weather Phenomena



February 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm
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SOUTH DAKOTA, West

SDZ001>002-012>014-025>026-030>032-043-046>047-049 **Harding - Perkins - Butte - Meade Co. Plains - Ziebach - Northern Foot Hills - Central Foot Hills - Custer Plains - Pennington Plains - Haakon - Jackson - Mellette - Todd - Tripp**

**03 0600MST
1900MST 0 0 High Wind (G60)**

This was a large scale synoptic wind event that stretched across the region. Strong winds were in the 35 to 45 mph range with gusts to over 70 mph from 7 am until sunset in portions of Western and South Central South Dakota.

SDZ025

Northern Foot Hills

**07 2200MST
2230MST 0 0 High Wind (G54)**

A cold front moving through the region channeled strong winds through the northern foothills. Strong winds lifted a 150 by 20 foot metal building off of its slab, up into the air and dropped it back to the ground. The building was home to more than 100 animals, from llamas to pigs to miniature ponies and chickens. Although some of the chickens were killed, the majority of the animals were unharmed. Surrounding observation sites reported winds gusts to 50 mph as the cold front moved through.

SDZ013>014-026-031

Meade Co. Plains - Ziebach - Central Foot Hills - Pennington Plains

**10 1100MST
1700MST 0 0 High Wind (G55)**

A deep low pressure system moved across South Dakota creating a tight pressure gradient over the western counties. A strong cold front associated with this system moved eastward through the region and winds became very strong around noon, and then died down around sunset as the cold front and low pressure system moved into northeastern South Dakota.

SDZ001>002

Harding - Perkins

**26 0800MST
1400MST 0 0 Heavy Snow**

SDZ001>002-013>014-032 **Harding - Perkins - Meade Co. Plains - Ziebach - Haakon**

**26 1500MST
27 0400MST 0 0 55K High Wind (G60)**

An intense upper level low pressure system over Minnesota, combined with a Pacific cold front moving into the region, created strong winds and some heavy snowfall over portions of northwestern South Dakota. The heaviest amounts were in the two northernmost counties along the North Dakota border where up to a foot of snow fell. The heavy, wet snow added considerable weight to some of the power lines in those two counties, and when the wind picked up, there were 55 power poles blown over.

WYOMING, Northeast

WYZ054>058

Gillette - South Campbell - Moorcroft - Wyoming Black Hills - Weston

**02 1900MST
03 1300MST 0 0 High Wind (G75)**

A large scale storm system pushed into the region creating strong winds throughout all of Wyoming. The peak gust in Northeastern Wyoming was at Devils Tower which had an 86 mph gust.



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Storm Data and Unusual Weather Phenomena



March 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
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SOUTH DAKOTA, West

SDZ013-025>026-028-031 Meade Co. Plains - Northern Foot Hills - Central Foot Hills - Central Black Hills - Pennington Plains
05 0900MST 2200MST 0 0 Heavy Snow

A strong area of low pressure centered just south of the Black Hills produced heavy snowfall along the foothills. The areas in west Rapid City and the surrounding foothills received the heaviest snow amounts with 10 to 15 inches of snow reported. Most of the region reported between 6 to 12 inches of snowfall. Nearly 200 accidents occurred in the Rapid City area...but no significant injuries were reported.

SDZ001-012>013-024>026-028>032 Harding - Butte - Meade Co. Plains - Northern Black Hills - Northern Foot Hills - Central Foot Hills - Central Black Hills - Southern Black Hills - Custer Plains - Pennington Plains - Haakon
10 0000MST 2300MST 0 3 Winter Storm

A surface low pressure system just south of the Black Hills combined with an upper level short wave over southwestern South Dakota created some locally heavy snowfall across the region. Generally, amounts ranged from 6 to 10 inches. The highest amounts were in the foothills near Sturgis, SD where up to 18 inches were reported.

SDZ001>002-012>014-025>026-030>032-043-049 Harding - Perkins - Butte - Meade Co. Plains - Ziebach - Northern Foot Hills - Central Foot Hills - Custer Plains - Pennington Plains - Haakon - Jackson - Tripp
16 1500MST 2000MST 0 0 High Wind (G63)

A surface low pressure system moving along the North and South Dakota border brought a strong cold front across the region. Winds briefly picked up behind the front with gusts to 72 mph. Two three hundred pound water tanks were blown across Highway 85 near Belle Fourche, SD, but no major damage was reported with this frontal passage.

WYOMING, Northeast

WYZ054-056>057 Gillette - Moorcroft - Wyoming Black Hills
05 1000MST 1900MST 0 0 Heavy Snow

A surface low pressure system south of the Black Hills brought wrap around snowfall into northeastern Wyoming. The Gillette area had the most precipitation with up to 12 inches reported. Interstate 90 was closed from Gillette to Sheridan because of the snowfall and the rapid accumulations that occurred at times.

WYZ054>058 Gillette - South Campbell - Moorcroft - Wyoming Black Hills - Weston
09 2200MST 10 2300MST 0 0 Winter Storm

Surface low pressure just south of the Black Hills combined with an upper level short wave to create some areas of heavy snowfall. Snow wrapped around the storm system and left Northeastern Wyoming in a favorable position for upslope precipitation. Up to 10 inches of snow fell in some places across the region. Overall amounts were generally from 4 to 8 inches.

WYZ054>055 Gillette - South Campbell
16 1500MST 1700MST 0 0 High Wind (G57)

A strong cold front swept through northeastern Wyoming creating short lived strong winds. Winds gusted up to 65 mph as the front passed through and then they decreased within the next hour.



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Storm Data and Unusual Weather Phenomena



April 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
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SOUTH DAKOTA, West

SDZ001>002-012>014-024>025-028 **Harding - Perkins - Butte - Meade Co. Plains - Ziebach - Northern Black Hills - Northern Foot Hills - Central Black Hills**

01	0000MST 1600MST	0	0	5K	Winter Storm
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A strong low pressure system moved over the Rocky Mountains onto the Central Plains. The associated cold front brought 6 to 12 inches of snow to portions of the Black Hills as well as areas in northwestern South Dakota. Some people near Sturgis were without power for three hours after power lines snapped from the the ice and gusty winds.

SDZ001>002-025 **Harding - Perkins - Northern Foot Hills**

02	2200MST	0	0	Winter Storm
03	1200MST			

A storm that developed in Colorado moved out over the Central Plains and brought 6 to 8 inches of snow to areas in northwestern South Dakota.

SDZ024 **Northern Black Hills**

09	2200MST	0	0	Winter Storm
10	1200MST			

A winter storm moving across the central plains created an upslope snowfall event for the Northern Black Hills. Snowfall amounts were generally 6 to 10 inches with 11 inches reported at Lead.

WYOMING, Northeast

WYZ054>057 **Gillette - South Campbell - Moorcroft - Wyoming Black Hills**

01	0000MST 1400MST	0	0	Winter Storm
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A strong low pressure system over the Rocky Mountains moved out over the Central Plains. The associated cold front brought 6 to 12 inches of snow over portions of northeastern Wyoming.

WYZ054 **Gillette**

02	2000MST	0	0	Winter Storm
03	1200MST			

A storm that developed in Colorado moved out over the Central Plains bringing with it 6 inches of new snow to areas in northeastern Wyoming.



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Storm Data and Unusual Weather Phenomena



May 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
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SOUTH DAKOTA, West

SDZ001>002-012>014-025>027-030>032-041>044-046>047-049 **Harding - Perkins - Butte - Meade Co. Plains - Ziebach - Northern Foot Hills - Central Foot Hills - Southern Foot Hills - Custer Plains - Pennington Plains - Haakon - Fall River Co. - Shannon - Jackson - Bennett - Mellette - Todd - Tripp**

05 0800MST 0 0 High Wind (G74)
06 1600MST

A slow moving low pressure system moved across western South Dakota and deepened as it moved into the eastern portions of the state while high pressure pushed in over the Rocky Mountains. Very strong northwest winds developed in western South Dakota and continued for nearly 48 hours. Numerous businesses had large signs blown down and billboards on the interstate were broken at their bases. Airlines cancelled flights into and out of Rapid City due to the high winds. Numerous power outages were also reported due to trees falling across the power lines.

Bennett County

Martin

09 1700MST 0 0 Hail (1.75)
1800MST

Tripp County

12 NW Winner

09 1732MST 0.1 1 0 0 Tornado (F0)
Brief Touchdown. Tornado path and width estimated

Tripp County

6 NW Hamill

09 1745MST 1 10 0 0 Tornado (F0)

A new barn had a portion of the roof torn off and thrown a quarter mile away, tree branches were snapped off and ground wires for power lines were snapped. A calving shed was also destroyed.

Todd County

3 NE Parmelee

09 1812MST 0.1 1 0 0 Tornado (F0)
Brief Touchdown. Tornado path and width estimated

Mellette County

2 N White River

09 1825MST 0.1 1 0 0 Tornado (F0)
Brief Touchdown. Tornado path and width estimated

Mellette County

2 SW White River

09 1825MST 0.1 1 0 0 Tornado (F0)
Brief Touchdown. Tornado path and width estimated

Todd County

8 W Mission

09 1842MST 0.1 1 0 0 Tornado (F0)
Brief Touchdown. Tornado path and width estimated

Tripp County

4 E Winner

09 1920MST 0 0 Hail (1.75)

Todd County

Mission

09 1926MST 0.1 1 0 0 Tornado (F0)
Brief Touchdown. Tornado path and width estimated

Todd County

4 SW Mission

09 1929MST 0.1 1 0 0 Tornado (F0)
Brief Touchdown. Tornado path and width estimated

Mellette County

Countywide

09 1930MST 0 0 Flood
10 0700MST

1 foot of water over Highway 63 after 2-4 inches of rain fell over the region. Numerous other county roads had water covering them also.

Todd County

Countywide

09 1950MST 0 0 Flood
10 0700MST

Numerous roads in the county were flooded over after 2 to 4 inches of rain fell. Several creeks were overflowing thier bank.



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May 1999

									May 1999
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>SOUTH DAKOTA, West</u>									
Todd County									
Mission	09	1950MST			0	0			Hail (1.75)
Todd County									
St Francis	09	2020MST			0	0			Hail (1.00)
	Several windows broken								
Pennington County									
Wall	09	2030MST			0	0			Hail (1.00)
Tripp County									
Countywide	09 10	2145MST 0700MST			0	0			Flood
	Numerous roads were underwater and several were washed out after thunderstorms dropped 2 to 4 inches of rain in over the area. White River at Oacoma reached 20.75 feet...flood stage is 15 feet.								
Pennington County									
8 NE Hill City to Hill City	15	1540MST			0	0			Hail (1.00)
Lawrence County									
10 NW Spearfish to 11 NW Spearfish	15	1543MST 1550MST	1	10	0	0			Tornado (F0)
	Brief Touchdown. Moved into Butte County.								
Butte County									
12 SW Belle Fourche to 9 SW Belle Fourche	15	1550MST 1553MST	1	10	0	0			Tornado (F0)
	Stayed in open country...moved from Lawrence County into Butte County								
Pennington County									
3 NW Hisega to Hisega	15	1600MST			0	0			Hail (0.75)
Meade County									
Tilford	21	1330MST 1340MST			0	1			Hail (1.50)
	1" to 1.5" hail...up to 6 inches deep on Interstate 90. A 5 car pile up left one person injured after several vehicles slid through the hail.								
Meade County									
Ellsworth Afb	21	1505MST			0	0			Hail (1.75)
Meade County									
Ellsworth Afb	21	1507MST 1516MST			0	0			Funnel Cloud
Harding County									
Redig	21	1509MST			0	0			Hail (0.75)
Pennington County									
Boxelder	21	1510MST			0	0			Hail (1.75)
Pennington County									
Rapid City Arpt to Caputa	21	1510MST 1535MST			0	0			Funnel Cloud
	Several funnel clouds reported								
Custer County									
5 N Dewey	21	1620MST			0	0			Hail (0.75)
Pennington County									
8 SW Hill City to Hill City	21	1645MST			0	0			Hail (0.75)
Custer County									
1 N Custer	22	0521MST			0	0			Hail (1.00)



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May 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

SOUTH DAKOTA, West

Custer County Fairburn	22	0555MST			0	0			Hail (1.00)
Custer County 5 S Custer	22	0625MST			0	0			Hail (0.75)
Shannon County 2 N Rockyford	22	0700MST			0	0			Hail (0.88)
Tripp County Winner	22	0920MST			0	0			Hail (0.75)
Tripp County 8 S Winner	22	0930MST 0940MST			0	0			Hail (1.00)
Todd County Parmelee	22	1000MST			0	0			Hail (1.25)
Lawrence County Lead	26	1347MST 1359MST			0	0			Hail (1.00)
Meade County Sturgis	26	1442MST 1450MST			0	0			Hail (0.75)
Ziebach County 5 SE Glad Vly	26	1630MST			0	0			Hail (0.75)

WYOMING, Northeast

WYZ054	Gillette								
05	1200MST 1600MST				0	0			High Wind (G52)

A slow moving low pressure system moved to the east of the region and created strong northwest winds for several hours.

Campbell County 10 W Wright	15	1308MST			0	0			Thunderstorm Wind (G61)
Campbell County 10 N Wright	15	1315MST			0	0			Hail (1.75)
Crook County 5 S Moorcroft	15	1415MST			0	0			Hail (1.75)
Crook County 12 E Moorcroft	21	1445MST			0	0			Hail (1.75)
Crook County 5 SW Sundance	21	1520MST			0	0			Hail (1.00)
Weston County 14 SW Newcastle	21	1534MST			0	0			Hail (1.75)
Weston County Osage	21	1555MST			0	0			Hail (1.00)
Weston County Osage	21	1615MST			0	0			Hail (1.00)



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June 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
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SOUTH DAKOTA, West

Pennington County

2 SW Keystone 02 1950MST 0 0 Hail (1.00)

Meade County

Ellsworth Afb 02 2053MST 0 0 Thunderstorm Wind (G59)

Todd County

8 S Olsonville 04 0010MST 0 0 Hail (0.75)

Fall River County

13 S Oelrichs 04 1656MST 0 0 Thunderstorm Wind (G61)

Fall River County

Edgemont 04 1705MST 0 0 5K Thunderstorm Wind

Strong winds from thunderstorms blew over several trees and fences in the community.

Shannon County

10 W Oglala 04 1730MST 0 0 Hail (1.75)

Shannon County

1 E Slim Butte 04 1730MST 0 0 Hail (2.50)

Shannon County

3 SSW Slim Butte to
3 NE Oglala 04 1730MST
1745MST 15 875 1 54 3.2M Tornado (F2)

This was the first of two tornadoes that swept through the town of Oglala. Spotters and law enforcement reported that the tornado went up and down several times. It remained on the ground just prior to hitting Oglala and then dissipated as it moved to the northeast. There was one fatality with 54 people receiving medical care for injuries. A church and three of its surrounding buildings were destroyed, 22 mobile homes destroyed, 30 to 50 buildings damaged and a lot of hail damage to roofs and vehicles. M54MH

Shannon County

2 W Oglala 04 1735MST 0 0 Hail (4.00)

Shannon County

2 SW Oglala to
2 NE Oglala 04 1740MST
1755MST 4 400 0 0 Tornado (F2)

This is the second tornado that formed just southwest of Oglala and then moved through the town. It was smaller than the first tornado and produced its damage about a half mile east of the first tornado.

Shannon County

Oglala 04 1745MST 0 0 Hail (1.75)

Shannon County

3 N Pine Ridge 04 1810MST 1 50 0 0 20K Tornado (F0)

A mobile home was destroyed by the tornado. Otherwise it remained in rural areas and was short lived. Path width and length estimated from law enforcement reports.

Shannon County

7 NE Oglala 04 1820MST 0 0 Hail (1.75)

Shannon County

5 SW Kyle 04 1830MST 0 0 Hail (1.75)

Shannon County

5 SW Kyle to
4 SE Kyle 04 1830MST
1900MST 9 75 0 0 50K Tornado (F0)

Three mobile homes destroyed. This tornado moved into Jackson County before dissipating. Path width and length estimated from law enforcement report.

Bennett County

5 S Martin 04 1845MST 0.5 10 0 0 Tornado (F0)

Weak tornado that touched down briefly. Path width and length estimated from reports



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June 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property Crops	Character of Storm
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SOUTH DAKOTA, West

Jackson County

10 SW Potato Creek to 5 S Potato Creek	04	1900MST 1915MST	5	75	0	0		Tornado (F0)
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This tornado originated in Shannon County 5 miles southwest of Kyle. Path width and length estimated from law enforcement report.

Jackson County Kadoka

04	1935MST			0	0		Hail (1.00)
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Tripp County Winner

04	2008MST			0	0	5K	Thunderstorm Wind
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Wind damage from a thunderstorm. A convenience store roof was damaged, power lines were down and several large trees were blown over.

Ziebach County 13 W Cherry Creek

04	2014MST			0	0		Thunderstorm Wind (G57)
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Bennett County Martin

05	1535MST			0	0		Hail (0.88)
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Bennett County 6 S Martin

05	1625MST	0.5	10	0	0		Tornado (F0)
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Brief touchdown. Path width and length estimated.

Bennett County 2 W Swett to 3 SW Allen

05	1710MST 1720MST	5	550	0	0		Tornado (F0)
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Width and path length reported by a local resident.

Bennett County 2 SW Allen to 2 NW Allen

05	1725MST 1735MST	3	100	0	0		Tornado (F0)
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Width and path length reported by a local resident.

Shannon County 8 SW Kyle

05	1730MST	0.5	10	0	0		Tornado (F0)
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Brief touchdown. Path width and length estimated.

Pennington County Keystone

05	1738MST			0	0		Hail (1.00)
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Shannon County 10 W Kyle

05	1810MST			0	0		Hail (1.25)
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Shannon County 12 SW Kyle

05	1810MST 1815MST			0	0		Hail (1.25)
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Pennington County Rapid City

05	1819MST			0	0		Thunderstorm Wind (G56)
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Meade County 3 SE Piedmont

05	1827MST			0	0		Thunderstorm Wind (G52)
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Jackson County Interior

05	1855MST			0	0		Hail (0.75)
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Haakon County Philip

05	1900MST			0	0		Hail (1.00)
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Tripp County 1 N Clearfield

05	1935MST	0.1	10	0	0	0	Tornado (F0)
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Brief touchdown. Path width and length estimated.

Ziebach County 10 SW Red Scaffold

05	2030MST			0	0		Thunderstorm Wind (G61)
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Estimated 70 mph wind gust. A mobile home roof was damaged by the strong wind gust.



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SOUTH DAKOTA, West

Haakon County

South Portion

05 2100MST
06 0700MST

0 0

Flood

3.99 Inches of rain at the Philip airport in less then 2 hours. Several buildings at the airport had flooding problems. Sheriff reported numerous roads were closed because they were under water.

Jackson County

North Portion

05 2200MST
06 1100MST

0 0

Flood

Several county roads were under water for several hours after heavy rainfall fell in the region. No major damage was reported other than washouts along the gravel roads.

Tripp County

Ideal

07 1655MST

0 0

Hail (0.75)

Tripp County

Ideal

07 1707MST

0 0

Hail (1.00)

Tripp County

Ideal

07 1744MST
1750MST

0 0

Hail (1.75)

Custer County

Pringle

07 1812MST

0 0

Hail (1.75)

Tripp County

Colome

07 1840MST

0 0

Hail (1.00)

Lawrence County

Lead

07 2012MST

0 0

Hail (2.00)

15,000 flowering plants were destroyed in downtown Lead. A restaurant had one corner of its roof damaged

Lawrence County

Deadwood

07 2015MST

0 0

Hail (1.50)

Meade County

Sturgis to 2 NE Sturgis

07 2034MST
2041MST

0 0

Hail (2.75)

Meade County

Red Owl to Faith

07 2145MST
2200MST

0 0

Hail (0.75)

Ziebach County

13 E Glad Vly

07 2210MST

0 0

Hail (1.75)

Harding County

Redig

08 1609MST

0 0

Hail (2.00)

Harding County

7 E Redig

08 1620MST

0 0

Hail (0.88)

Harding County

28 E Redig

08 1645MST

0 0

Hail (1.00)

Harding County

12 S Reva

08 1700MST

0 0

Hail (1.00)

Meade County

Union Center

08 2327MST

0 0

Hail (1.00)

Butte County

22 NW Belle Fourche

09 0000MST

0 0

Hail (2.00)

Lawrence County

Lead

09 0003MST

0 0

Hail (1.00)



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					Killed	Injured	Property	Crops	
<u>SOUTH DAKOTA, West</u>									
Pennington County									
2 SW Keystone	12	1540MST			0	0			Hail (0.88)
Custer County									
10 E Custer	12	1606MST			0	0			Hail (1.75)
Custer County									
1 W Hermosa	12	1620MST			0	0			Hail (1.00)
Shannon County									
5 N Kyle	12	1825MST			0	0			Thunderstorm Wind (G52)
Fall River County									
11 W Hot Spgs	12	1838MST			0	0			Hail (1.75)
Bennett County									
Martin	12	1943MST			0	0			Hail (1.00)
Pennington County									
1 W Rapid City Arpt to 7 E Rapid City Arpt	15	1340MST 1350MST			0	0			Funnel Cloud
Custer County									
Countywide	18	1445MST 2300MST			0	0			Flood
Heavy rainfall flooded rural roads along with Highways 385 and 79, which had 3-4 feet of water over them.									
Harding County									
Camp Crook	18	1450MST			0	0			Hail (0.88)
Pennington County									
15 SW Rapid City	18	1530MST			0	0			Hail (1.00)
Pennington County									
South Central Portion	18	1648MST 1956MST			0	0	330K		Flood
Very heavy rainfall inundated Battle Creek. The most damage was between Hill City and Keystone. The 1880 Historic Train had several hundred feet of railroad track that was washed out at a cost of \$300,000. Local authorities blocked off several roads in the area and a few of them washed out. The cost of repairs on these roads were around \$30,000. The flood stage at Camp Judson on Battle Creek is 6.5 feet and the river reached 8.48 feet around 1648 MST and dropped back below flood stage at 1830 MST.									
Custer County									
East Portion	19	0030MST 0400MST			0	0			Flood
Flooding which originated upstream in Pennington County between Keystone and Hill City shifted downstream along Battle Creek. The flood stage at Hermosa is 8 feet and the river crested at 10.41 feet at 0230 MST.									
Butte County									
Belle Fourche	19	2140MST			0	0			Thunderstorm Wind (G54)
Meade County									
13 NE Tilford to 13 NNE Tilford	20	1700MST			0	0			Hail (0.75)
Harding County									
21 NNW Buffalo to 25 N Buffalo	20	2114MST			0	0	4K		Thunderstorm Wind
Power company reported 4 power poles blown over.									
Harding County									
2 NW Ladner	20	2138MST			0	0			Hail (1.75)



National Weather Service

Storm Data and Unusual Weather Phenomena



June 1999

									June 1999
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
SOUTH DAKOTA, West									
Harding County 1 SE Ladner	20	2145MST 2205MST			0	0			Hail (0.88)
Harding County 1 SE Ladner	20	2145MST 2205MST			0	0			Thunderstorm Wind (G61)
Harding County 2 E Ladner	20	2149MST 2200MST			0	0			Hail (1.00)
Harding County 2 E Ladner to 2 SE Ladner	20	2149MST 2200MST	2	400	0	0	15K		Tornado (F1)
Tornado moved across a ranch. 15 sheep were killed when they were picked up and thrown through a barbed wire fence into a pond. Cattle stockades were destroyed and a grain bin anchored in concrete was picked up and thrown several yards. Storm path and width were provided by a local pilot who flew over the area the following morning.									
Harding County 2 E Ladner	20	2149MST			0	0			Thunderstorm Wind (G91)
Measured wind speed.									
Meade County 2 N Sturgis to 1 N Sturgis	21	1340MST			0	0			Hail (0.88)
Meade County 2 N Piedmont	22	1220MST			0	0			Hail (1.00)
Pennington County 2 NW Rochford	22	1235MST			0	0			Hail (0.75)
Pennington County 2 ENE Silver City	22	1258MST			0	0			Hail (0.88)
Meade County Ellsworth Afb	22	1345MST			0	0			Hail (0.75)
Pennington County Deerfield	22	1410MST			0	0			Hail (1.00)
Pennington County 15 WSW Rapid City	22	1440MST			0	0			Hail (0.88)
Perkins County Lemmon	25	1828MST			0	0			Hail (0.75)
Fall River County Ardmore	27	1530MST			0	0			Hail (0.75)
Lawrence County 9 SW Spearfish	27	1709MST			0	0			Thunderstorm Wind (G70)
Lawrence County 8 WNW Spearfish	27	1717MST			0	0			Hail (1.25)
Butte County 5 S Belle Fourche	27	1718MST 1730MST			0	0			Hail (0.75)
Lawrence County Lead	27	1724MST			0	0			Hail (0.75)
Lawrence County Spearfish Arpt	27	1724MST			0	0			Thunderstorm Wind (G54)



National Weather Service

Storm Data and Unusual Weather Phenomena



June 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm
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SOUTH DAKOTA, West

Lawrence County

6 E Spearfish to 8 E Spearfish	27	1730MST	2	50	0	0		Tornado (F1)
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The tornado knocked several trees into a home, destroyed a chicken coop and damaged a rental car which had a tree fall on it. Numerous trees around the property were also blown down.

Meade County

Sturgis	27	1732MST			0	0		Hail (0.88)
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Meade County

4 SE Sturgis	27	1750MST			0	0		Hail (1.75)
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Meade County

13 E Sturgis	27	1810MST			0	0		Hail (2.75)
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Meade County

1 N Hereford	27	1830MST 1840MST			0	0		Hail (0.75)
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Meade County

3 SE Elm Spgs	27	1855MST			0	0		Hail (0.75)
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Custer County

3 W Buffalo Gap	27	1930MST			0	0		Hail (1.75)
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Custer County

Wind Cave	27	1930MST			0	0		Hail (1.00)
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Custer County

Fairburn to Hermosa	29	1250MST 1350MST			0	0		Flash Flood
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Water along French and Grace Coolidge Creeks rose rapidly after 3 to 4 inches of rain in less than an hour. Some vehicles in the Hermosa area had water up to the doors because local drainage systems could not keep up with the water.

Todd County

7 S St Francis	29	1412MST 1415MST	0.1	10	0	0		Tornado (F0)
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Rain wrapped tornado that was short lived.

Todd County

10 W St Francis	29	1418MST 1422MST			0	0		Funnel Cloud
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Two funnel clouds spotted at the same time by two separate observers

Todd County

8 W St Francis	29	1422MST			0	0		Hail (0.75)
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Todd County

8 W St Francis to 6 W St Francis	29	1422MST	2.5	30	0	0		Tornado (F0)
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Spotters reported a rope type tornado that stayed in open country.

Todd County

7 W Mission	29	1427MST			0	0		Funnel Cloud
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Funnel cloud lasted about five minutes.

Lawrence County

Spearfish	30	1325MST			0	0		Hail (0.75)
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Shannon County

Slim Butte	04	1730MST 1740MST	1	100	0	0		Tornado (F0)
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Tornado reported by State Trooper.



National Weather Service

Storm Data and Unusual Weather Phenomena



June 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm
<u>SOUTH DAKOTA, West</u>									
Mellette County White River	30	2300MST 2310MST			0	0			Hail (1.25)
Meade County Union Center	30	2320MST			0	0			Thunderstorm Wind (G52)
Meade County Red Owl	30	2330MST			0	0			Hail (1.00)
Meade County Red Owl	30	2330MST Winds estimated at 70 to 80 mph.			0	0			Thunderstorm Wind (G65)
Mellette County White River	30	2345MST			0	0			Hail (1.75)
<u>WYOMING, Northeast</u>									
Weston County 4 E Four Corners	05	1330MST			0	0			Hail (1.00)
Crook County 1 SW Aladdin	05	1345MST	0.1	10	0	0	0		Tornado (F0) Brief touchdown. Path width and length estimated.
Campbell County 30 SSE Gillette	05	1403MST			0	0			Hail (1.00)
Campbell County 5 N Rozet	05	1442MST			0	0			Hail (0.75)
Campbell County 22 SE Gillette	05	1455MST			0	0			Funnel Cloud
Weston County Four Corners	08	2344MST			0	0			Hail (0.75)
Crook County 5 W Moorcroft	12	1436MST			0	0			Hail (1.75)
Campbell County 22 W Wright to 13 SW Wright	12	1445MST 1510MST	12	400	0	0	0		Tornado (F0) Moved over open rangeland. Spotters watched the tornado for nearly 40 minutes before it dissipated
Crook County Moorcroft	12	1502MST 1509MST			0	0			Thunderstorm Wind (G52) Wind speed estimated by law enforcement at 60 to 80 mph.
Campbell County 15 SW Wright to 19 S Wright	12	1515MST 1549MST	16	250	0	0			Tornado (F0) Tornado reformed and moved southeast into Converse County.
Crook County 10 SW Devils Tower	12	1520MST			0	0			Hail (0.75)
Weston County Upton	12	1545MST			0	0			Thunderstorm Wind (G61)
Campbell County 10 SW Wright	12	1620MST	1	30	0	0	0		Tornado (F0) Brief touchdown. Tornado width and length estimated.



National Weather Service

Storm Data and Unusual Weather Phenomena



June 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Killed	Number of Persons Injured	Estimated Damage Property	Crops	Character of Storm
<u>WYOMING, Northeast</u>									
Weston County 3 S Upton	15	1158MST			0	0			Funnel Cloud
Campbell County 20 W Wright	15	1822MST			0	0			Funnel Cloud
									3 Funnel Clouds sighted. Short lived.
Campbell County 15 SW Gillette	17	1712MST 1730MST	1	50	0	0	0		Tornado (F0)
									Brief touchdown. Tornado width and length estimated from reports.
Campbell County 2 SW Gillette	17	1715MST			0	0			Thunderstorm Wind (G75)
Campbell County 10 N Wright	17	1820MST			0	0			Hail (1.75)
Campbell County 10 N Wright	17	1830MST	0.1	10	0	0	0		Tornado (F0)
									Brief touchdown. Tornado width and length estimated.
Campbell County 20 WSW Gillette to 20 SSW Gillette	17	1900MST			0	0			Hail (1.75)
Campbell County 5 N Rockypoint	19	2035MST			0	0			Hail (0.88)
Campbell County 24 SE Gillette to 24 E Gillette	27	1535MST			0	0			Hail (0.75)
Crook County 3 SE Aladdin	27	1700MST			0	0			Hail (0.88)



National Weather Service

Storm Data and Unusual Weather Phenomena



July 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
<u>SOUTH DAKOTA, West</u>									
Tripp County Winner	01	0006MST			0	0			Hail (1.75)
Haakon County Milesville	01	0007MST			0	0			Hail (1.00)
Tripp County Winner	01	0042MST			0	0			Hail (1.00)
Tripp County 18 SE Winner	01	0059MST			0	0			Hail (0.88)
Todd County 7 S Olsonville	02	2127MST			0	0	10K		Thunderstorm Wind Spotters reported power lines blown down and several cars were damaged by fallen tree branches
Tripp County Winner	02	2144MST			0	0	10K		Thunderstorm Wind (G51) Nine power poles and several large trees were blown down
Shannon County Pine Ridge	03	2018MST			0	0			Thunderstorm Wind (G52)
Shannon County Pine Ridge	03	2020MST			0	0			Hail (0.75)
Bennett County Allen	03	2115MST			0	0			Funnel Cloud Public report of a short lived funnel cloud.
Bennett County Allen	03	2125MST			0	0	5K		Thunderstorm Wind A mobile home was blown over and damaged. No estimate of wind speed given.
Custer County 4 E Custer	15	1830MST			0	0			Hail (0.75)
Meade County Ellsworth Afb	15	1915MST			0	0			Thunderstorm Wind (G61)
Shannon County Pine Ridge	15	2005MST			0	0			Thunderstorm Wind (G51)
Fall River County 8 S Hot Spgs	17	1515MST			0	0			Thunderstorm Wind (G70) Winds over 80 mph damaged camping areas around Angustora Reservoir.
Fall River County 8 SE Hot Spgs	17	1540MST			0	0			Hail (0.75)
Fall River County 12 SE Hot Spgs	17	1600MST			0	0			Thunderstorm Wind (G52) Wind gusts estimated at 60 mph.
Butte County Vale	19	1111MST			0	0			Thunderstorm Wind (G52)
Butte County 3 SW Vale	19	1130MST			0	0	5K		Thunderstorm Wind (G52) Doors torn off a barn. Two horses were killed and another injured.
Butte County 8 E Belle Fourche	19	1201MST			0	0	1K		Thunderstorm Wind Trees were blown over and sheds and barns had damage.



National Weather Service

Storm Data and Unusual Weather Phenomena



July 1999

July 1999									
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>SOUTH DAKOTA, West</u>									
Meade County Hereford	19	1220MST			0	0			Hail (0.88)
Pennington County 5 W Hill City to Hill City	20	1450MST 1459MST			0	0			Hail (1.00)
Custer County 6 N Custer	20	1530MST 1545MST			0	0			Hail (0.75)
Custer County 1 S Hermosa	24	1330MST			0	0			Hail (1.00)
Mellette County 11 S Cedar Butte	24	1640MST Winds were estimated at 60 to 70 mph by spotter.			0	0			Thunderstorm Wind (G52)
Todd County 2 SW Parmelee	24	1700MST			0	0			Hail (0.75)
Todd County Rosebud	24	1726MST 1735MST			0	0			Hail (0.75)
Jackson County Interior	27	1415MST			0	0			Hail (0.75)
Mellette County 1 N Cedar Butte	27	1530MST Several large trees were snapped in half.			0	0	1K		Thunderstorm Wind
Jackson County 3 SW Potato Creek	27	1555MST			0	0			Hail (0.75)
Mellette County 11 S Cedar Butte	27	1555MST Winds were estimated at 60 to 70 mph.			0	0			Thunderstorm Wind (G52)
<u>WYOMING, Northeast</u>									
Campbell County 8 SE Gillette	07	1545MST			0	0			Hail (0.75)
Crook County 25 NW Hulett	07	1635MST			0	0			Thunderstorm Wind (G52)
Crook County 21 N Hulett	07	1700MST			0	0			Hail (1.00)
Weston County 10 W Upton	15	1515MST			0	0			Hail (0.75)
Campbell County 20 SE Gillette	15	1525MST			0	0			Hail (1.00)
Crook County 14 SW Sundance	15	1615MST			0	0			Hail (1.00)
Weston County 6 N Upton	15	1615MST Hail was one foot deep along the Crook and Weston county line.			0	0			Hail (1.00)
Weston County 15 W Four Corners	15	1640MST			0	0			Thunderstorm Wind (G52)



National Weather Service

Storm Data and Unusual Weather Phenomena



July 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
<u>WYOMING, Northeast</u>									
Crook County Devils Tower	15	1715MST			0	0			Hail (0.88)
Weston County 5 SW Newcastle	17	1424MST	0.1	10	0	0			Tornado (F0)
Brief touchdown. Path width and length estimated.									
Weston County 4 SW Upton	20	1907MST			0	0			Hail (0.75)
Weston County 16 SW Upton	20	2000MST			0	0			Hail (0.75)
Campbell County Countywide	21 22	1700MST 1700MST			0	0			Lightning
11 fires were started throughout the county due to lightning striking rangeland and hay bales. The largest fire reached 300 acres before firefighters were able to contain it.									
Campbell County Echeta	21	1715MST			0	0			Thunderstorm Wind (G66)



National Weather Service

Storm Data and Unusual Weather Phenomena



August 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
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SOUTH DAKOTA, West

Meade County 3 SE Piedmont	06	1905MST 1912MST			0	0			Thunderstorm Wind (G61)
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Meade County 9 E Piedmont	06	1915MST			0	0			Hail (1.00)
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Meade County Ellsworth Afb	06	1918MST 1930MST			0	0			Thunderstorm Wind (G77)
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Pennington County Boxelder	06	1920MST 1930MST			0	0			Thunderstorm Wind (G65)
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Meade County Ellsworth Afb	06	1925MST			0	0			Thunderstorm Wind (G99)
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Measured on the northwest runway wind sensor.

Meade County Ellsworth Afb	06	1929MST			0	0			Thunderstorm Wind (G99)
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Measured on the southeast runway wind sensor.

The first report of high winds was southeast of Piedmont with gusts of 65 to 70 mph estimated by a National Weather Service employee. Damage in that area included several downed trees and levelled gardens. As the storm moved east, large hail was reported. The first wind gust at Ellsworth AFB was 89 mph at 1918 MST on the northwest end of the runway. By 1925 MST, sustained winds were over 50 mph for nearly 10 minutes and the peak gust was 114 mph. The sensor on the southeast end of the runway, 2.5 miles away, recorded a wind gust of 114 mph at 1929 MST. The damage on the base included several large trees blown over and snapped in half and roof damage to base housing units. A few tents set up on the taxiways for an air show were blown around, but not significantly damaged. A survey by base meteorologists indicated the main downburst winds hit over open prairie surrounding the runway, where there are no trees or structures. Also between 1920 and 1930 MST, a meteorology student estimated winds between 70 and 80 mph at Box Elder, where gardens were levelled and wooden fences and roofs were damaged.

Custer County Central Portion	07	1201MST 1400MST			0	0	115K		Flash Flood
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Nearly stationary thunderstorms produced from 3 to 7 inches of rainfall in the French Creek basin. This water inundated French Creek which flows through Custer and considerable damage occurred to county roads and portions of the city of Custer. Over one dozen evacuations were ordered. One major result of the flooding was the contamination of the waste treatment plant which took in 2.9 million gallons of water in 48 hours, and it can normally handle just 500,000 gallons of water a day. The newly completed city baseball park was also completely flooded. Between the city of Custer and the state highway department, damage estimates to streets, bridges, highways and buildings was approximately \$115,000. There has been no estimate so far of damages to private property, but numerous homes had up to 3 to 4 inches of water in their basements.

Lawrence County Cheyenne Crossing	11	1255MST			0	0			Hail (0.88)
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Lawrence County 4 SW Lead	11	1303MST			0	0			Hail (0.88)
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Lawrence County 5 SW Nemo	11	1355MST 1420MST			0	0			Hail (1.00)
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Hail was in drifted up to a foot deep along portions of Highway 385.



National Weather Service

Storm Data and Unusual Weather Phenomena



August 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
<u>SOUTH DAKOTA, West</u>									
Pennington County									
2 NE Silver City	11	1403MST 1407MST			0	0			Hail (0.88)
Pennington County									
3 SW Onhson Siding	11	1427MST			0	0			Hail (1.00)
Pennington County									
Onhson Siding	11	1435MST			0	0			Hail (0.75)
Pennington County									
5 SW Rapid City	11	1503MST 1509MST			0	0			Hail (1.00)
Harding County									
5 NW Buffalo	11	1915MST			0	0			Hail (1.50)
Todd County									
Parmelee	11	1957MST			0	1			Lightning
A 32 year old man was paralyzed by lightning when lightning struck the screen door in front of him. He was knocked to the ground and witnesses say that he was indirectly hit by the lightning strike. Paramedics on scene noted that there were no entrance or exit wounds. He was transported to Rapid City for medical care.									
Perkins County									
Lemmon	11	2020MST			0	0			Hail (1.50)
Perkins County									
Lemmon	11	2030MST			0	0			Hail (1.75)
Perkins County									
19 SW Lemmon to 1 NE Lemmon	11	2030MST			0	0	500K	1M	Thunderstorm Wind (G70)
A combination of large hail and high winds in northern Perkins county resulted in nearly total losses in crops, and significant damage to vehicles and buildings in the Lemmon area. Newspaper reports stated golfball sized hail fell for 45 minutes in the southwest portion of Lemmon. The Perkins County Agricultural Extension Agent estimated around 25,000 acres of corn, sunflowers, small grain and rangeland were damaged to the point where they were considered total losses. He also estimated winds of around 80 mph in the Lemmon areas. 5 to 6 inches of rain also fell, which caused minor flooding problems in about 5 percent of the homes and businesses in Lemmon. Over 600 insurance claims have been filed so far and losses may total over 1.5 million dollars according to several insurance agency reports.									
Lawrence County									
8 W Spearfish	11	2105MST			0	0			Hail (0.75)
Butte County									
4 S Belle Fourche	11	2123MST			0	0			Hail (1.00)
Perkins County									
8 NNW Uata	11	2300MST			0	0	1K		Thunderstorm Wind
Several large trees were blown over on ranch property of a cooperative observer.									
Tripp County									
Ideal	20	1605MST 1610MST			0	0			Hail (0.75)
Pennington County									
Hisega	21	1220MST			0	0			Hail (1.00)
Butte County									
Vale	27	1252MST			0	0			Thunderstorm Wind (G57)
The doors were blown off a shed.									



National Weather Service

Storm Data and Unusual Weather Phenomena



August 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage	Character of Storm
					Killed	Injured	Property Crops	

SOUTH DAKOTA, West

Jackson County 6 E Kadoka	27	1330MST			0	0		Thunderstorm Wind (G52)
Lawrence County Deadwood	29	1206MST			0	0		Hail (0.75)
Lawrence County 2 N Deadwood	29	1225MST 1245MST			0	0		Hail (1.00)
Lawrence County 5 SE Deadwood	29	1245MST			0	0		Hail (0.88)
Jackson County Interior	29	1615MST			0	0		Hail (1.75)
Jackson County Interior	29	1615MST			0	0		Thunderstorm Wind (G52)
Jackson County 1 N Wanblee	29	1705MST			0	0		Hail (0.75)
Jackson County Wanblee	29	1712MST 1722MST			0	0		Hail (1.00)
Jackson County Longvalley	29	1750MST			0	0		Hail (1.75)
Mellette County Norris	29	1825MST			0	0		Hail (1.00)
Tripp County 3 SW Ideal	29	2240MST			0	0		Hail (1.75)

WYOMING, Northeast

Crook County 5 W Beulah	06	1728MST			0	0		Hail (1.00)
Campbell County 12 S Gillette	11	1904MST			0	0		Thunderstorm Wind (G52)
Campbell County 15 SE Belle Ayr	11	1910MST			0	0		Hail (1.50)
Campbell County 15 SSE Gillette	11	1924MST			0	0		Funnel Cloud
Campbell County 6 S Rozet	11	1945MST			0	0	0	Hail (1.00)
Windows were broken at a spotters home.								
Crook County Moorcroft	11	2000MST			0	0	20K	Hail (1.75)
Eighty houses had hail damage--mostly broken windows and damaged siding. Two police vehicles had moderate hail damage and another was totaled by hail.								
Crook County Moorcroft	11	2000MST			0	0		Thunderstorm Wind (G52)
Crook County 5 E Moorcroft	11	2005MST			0	0		Hail (2.00)
Crook County 15 E Moorcroft	11	2016MST			0	0		Hail (1.75)



National Weather Service

Storm Data and Unusual Weather Phenomena



August 1999

Location	Date	Time	Path	Path	Number of		Estimated		Character of Storm
		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	

WYOMING, Northeast

Crook County

4 NE Sundance

28

1945MST

0

0

5K

Thunderstorm Wind

Power poles and outdoor advertising signs along Interstate 90 were blown down.



National Weather Service

Storm Data and Unusual Weather Phenomena



September 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

SOUTH DAKOTA, West

Ziebach County

Dupree	11	0132MST			0	0			Hail (0.75)
SDZ013-032			Meade Co. Plains - Haakon						
	25	1550MST 1658MST			0	0			High Wind (G54)

A strong cold front swept through the region. Winds gusted over 50 kts for 15 to 30 minutes before decreasing again.

Ziebach County

13 W Cherry Creek	25	1707MST			0	0			Thunderstorm Wind (G56)
Lawrence County									
8 W Spearfish	26	1310MST 1312MST			0	0			Hail (0.75)



National Weather Service

Storm Data and Unusual Weather Phenomena



October 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
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SOUTH DAKOTA, West

SDZ001>002-014

Harding - Perkins - Ziebach

01

0030MST
0700MST

0

0

Heavy Snow

Six to twelve inches of snow fell in a narrow band across the southern half of Harding and Perkins Counties and northern Ziebach County. Hundreds of trees that still had leaves on them had large branches broken off by the heavy, wet snow.

SDZ013>014-031>032

Meade Co. Plains - Ziebach - Pennington Plains - Haakon

27

0943MST
1620MST

0

0

High Wind (G59)

SDZ001>002-012>014-
025>026-030>032

Harding - Perkins - Butte - Meade Co. Plains - Ziebach - Northern Foot Hills - Central Foot Hills - Custer Plains -
Pennington Plains - Haakon

31

1730MST
2345MST

0

0

High Wind (G62)

A strong cold front moved through the region. Two semi-trailers were flipped over by the high wind gusts on Interstate 90 near Kadoka. Power lines in northeastern Meade County were blown down. The sparks from these lines ignited a fire which burned 15,000 acres of rangeland. It covered an area from 8 miles west of Faith, SD to 12 miles southeast of Faith, SD. 300 tons of hay were destroyed as well as several vacant outbuildings, fencing and corrals. Flames were reported to be as high as 40 feet at the head of the fire.



National Weather Service

Storm Data and Unusual Weather Phenomena



November 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
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SOUTH DAKOTA, West

SDZ001>002-013>014-031 Harding - Perkins - Meade Co. Plains - Ziebach - Pennington Plains

01	0030MST 1200MST				0	0			High Wind (G56)
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A strong cold front caused sustained winds over 40 mph. Buffalo, South Dakota had sustained winds over 40 mph for 11 hours.

SDZ001-012-024>025 Harding - Butte - Northern Black Hills - Northern Foot Hills

18	0001MST 1500MST				0	0			Heavy Snow
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A storm system brought 6 to 10 inches of snow in portions of the Black Hills and northwestern South Dakota.

SDZ001-012>013-030>032 Harding - Butte - Meade Co. Plains - Custer Plains - Pennington Plains - Haakon

18	1230MST 1621MST				0	0			High Wind (G59)
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A storm system brought high winds to the region. Winds were sustained over 40 mph for a few hours with the peak wind speed of 68 mph recorded at Ellsworth Air Force Base.

WYOMING, Northeast

WYZ057 Wyoming Black Hills

18	0001MST 1500MST				0	0			Heavy Snow
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A storm system brought 6 to 10 inches of snow to portions of the Bear Lodge Mountains.



National Weather Service

Storm Data and Unusual Weather Phenomena



December 1999

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	

SOUTH DAKOTA, West

SDZ001-013-031	Harding - Meade Co. Plains - Pennington Plains								
	13	1958MST 2104MST			0	0			High Wind (G50)
SDZ001>002-012>014- 025>026-030>032-043-046- 049	Harding - Perkins - Butte - Meade Co. Plains - Ziebach - Northern Foot Hills - Central Foot Hills - Custer Plains - Pennington Plains - Haakon - Jackson - Mellette - Tripp								
	18	0344MST 1600MST			0	0			High Wind (G59)

A strong cold front moved through the region. There were 11 hours where sustained winds at Buffalo, SD were above 50 mph. The rest of the region had several hours of sustained winds over 40 mph with gusts to near 60 mph.